

# JANUARY REPORT

A monthly report on transportation research, education, and outreach activities at the University of Minnesota

## HASELKORN IS WINTER LUNCHEON SPEAKER; WINTER QUARTER EVENTS SCHEDULED

The Center's winter quarter luncheon presentation will be held on February 13 and will feature **Mark Haselkorn**, professor and chair of the Department of Technical Communication at the University of Washington. Haselkorn, one of the nation's leading experts on the use and impact of computer technology on information dissemination, will discuss "Understanding Commuter Behavior: Helping the Public Deal with Traffic Congestion." Haselkorn's research has provided important insights into commuter behavior and how information affects their behavior, an area of particular importance in the development of Intelligent Vehicle/Highway Systems. He is currently leading a project sponsored by the State of Washington and the USDOT that is developing a PC-based, real-time Advanced Traveler Information System for the Puget Sound area. To reserve a seat for this luncheon, please return the enclosed form. The Center's winter quarter faculty and careers seminars have also been scheduled; details are included in the enclosed calendar.

## CENTER RECEIVES FEDERAL IVHS FUNDING

The Surface Transportation Act recently signed by **President Bush** establishes five new institutes for transportation research and education. One of the institutes will be housed within the University of Minnesota Center for Transportation Studies, designated as the Institute for Intelligent Vehicle/Highway Systems (IVHS) Concepts. In this program, CTS will work closely with the Minnesota Department of Transportation and other partners in advancing the IVHS efforts begun under the Guidestar program. Institute funding, at \$1 million per year for six years, will be used for research and education efforts, complementing the state funds CTS received from the 1991 legislature for program management, outreach, non-IVHS research, and technology transfer activities. This is an example of state operating funds being leveraged to attract additional external funds. The Center is grateful to Senator **Dave Durenberger**, Congressmen **James Oberstar** and **Martin Sabo**, and their staffs for their work in establishing this CTS institute.

## CTS COUNCILS HOLD FALL MEETINGS

The six CTS Councils held their fall meetings in December to begin making plans for the next fiscal year. The Councils heard status reports of current activities and designated subcommittees to pursue new initiatives. All Councils are involved in planning the CTS Research Conference that will be held in May (see related item below). The four research councils heard and discussed research ideas from principal investigators, and also made plans for research panels to meet periodically to review and discuss current projects. The Education Council discussed follow-up steps to the education survey that currently is being implemented and analyzed. The Information/Outreach Council established three subcommittees to work with the Center on publications, events, and information services. If you have questions about the councils, contact the following chairpersons: **A. Scheffer Lang** (Transportation and the Economy); **Mike Robinson** (Transportation Safety and Traffic Flow); **Doug Weiszhaar** (Transportation Infrastructure); **Judy Hollander** (Transportation and the Environment); **Jim Newland** (Education); and **Carol Bufton** (Information/Outreach). The spring Council meetings are scheduled for May 4, 1992.

## EDUCATION AND EXTENSION POSITION TO BE ANNOUNCED

The Center will be hiring a full-time person to direct the development and management of training courses and technology transfer activities for transportation professionals and to work with University departments in strengthening transportation education for University students. As part of these responsibilities, this position will direct the Minnesota Technology Transfer (T<sup>2</sup>) Program sponsored by the Federal Highway Administration and the Minnesota Local Road Research Board. The position posting, pending University approval, will be available in January, and will be advertised in the *Star Tribune* and *Pioneer Press*. After University approval, copies of the posting may be obtained by calling the Center at (612) 626-1077.

## CTS COUNCILS PLAN RESEARCH CONFERENCE

Subcommittees from the six CTS Councils met during December to plan sessions for the Center's Third Annual Transportation Research Conference, to be held May 5-6, 1992, in St. Paul. Subcommittee members reviewed 50 abstracts that had been submitted in response to the Call for Presentations and created many interesting and timely sessions. Abstracts were received from out-of-state authors this year, indicating that the conference is receiving national attention. Subcommittee members will be contacting additional presenters to ensure that the conference provides a comprehensive look at current transportation issues. The format for this year's conference will again include concurrent sessions grouped into five categories: Transportation and the Economy, Transportation Safety and Traffic Flow, The Transportation Infrastructure, Transportation and the Environment, and Human and Community Issues. A conference brochure and registration form will be mailed with the Center's *March Report*. For further information contact **Lori Graven** at (612) 625-9023.

## STEERING COMMITTEE FOR HUMPHREY INSTITUTE PROJECT HOLDS FIRST MEETING

The steering committee for a major transportation research initiative by the Humphrey Institute met for the first time in December. The "State and Local Policy Program Transportation Project" is a multidisciplinary effort authorized by a grant from the U.S. Congress that is intended to create new models for federal, state, and local cooperation in infrastructure investment. Steering committee members include **Dick Braun** of CTS; **Ed Cohoon** and **Merritt Linzie** of Mn/DOT; **Mike Erlandson** from the office of Rep. **Martin Sabo**; **John Bowers** of the Federal Highway Administration; and transportation officials from the other four states involved in the initiative --South Dakota, North Dakota, Iowa, and Montana. Committee members fine-tuned a project work plan and identified issues to be addressed at future project hearings and conferences. The meeting, which was organized by project coordinator **Ron Salmela**, also featured presentations by project director **Lee Munnich** and **G. Edward Schuh**, dean of the Humphrey Institute. The committee will hold three additional meetings later this year.

## IVHS AMERICA SUBCOMMITTEE DEVELOPING STRATEGIC PLAN

The 48-member Coordinating Council of IVHS AMERICA, chaired by CTS Director **Dick Braun**, has established a subcommittee to develop a strategic plan for Intelligent Vehicle/Highway Systems (IVHS) in the United States. The subcommittee, chaired by **Tom Deen**, executive director of the Transportation Research Board, completed a second draft of the strategic plan in a December meeting in Washington, D.C. The plan sets forth an IVHS vision, mission, goals, and objectives and discusses roles and responsibilities, products and services, funding, near-term priorities, implementation, and other key issues. A major emphasis of the plan is to develop ways to encourage public/private partnerships. The subcommittee feels that over the next 20 years, a national IVHS program may have a greater impact than the Interstate Highway System.

## LOCAL ROAD RESEARCH BOARD SUPPORTS CTS TIMBER BRIDGE RESEARCH

At its December meeting, the Minnesota Local Road Research Board allocated funding for continuing timber bridge research that was started using CTS seed research funds. A work plan has been agreed upon by **Gene Isakson** of Sibley County, **Bob Seavey** of Forest Products, **Roberto Leon** of Civil and Mineral Engineering, and **Don Flemming** of Mn/DOT that will test new ways of rehabilitating timber bridges, using a Sibley County bridge. The Board, chaired by **Mike Wagner**, also heard status reports of other University research--including weed control, pavement, and intersection research--and directed the Center to investigate research options for examining utility maintenance and soil frost heave issues.

## LEGISLATORS TOUR HUMAN FACTORS LABORATORY

Last month several legislators from Senator **Don Frank's** Transportation Safety Subcommittee were given a tour of the University's Human Factors Research Laboratory by Professor **Peter Hancock**, the laboratory's director. The senators--**Carol Flynn**, **Terry Johnston**, and **Lyle Mehrkens**--viewed the laboratory's latest equipment and were given opportunities to operate the newly restructured driving simulator. The Center's 1991-92 research program is funding several projects at the laboratory that deal with traffic safety, including one project studying the conspicuity of traffic signs and drivers' ability to absorb information from them. The laboratory's research is also an important component of Minnesota Guidestar, the Intelligent Vehicle/Highway Systems (IVHS) program of Mn/DOT and the University.

## MN/DOT AND SHRP DEMONSTRATE REMOTELY DRIVEN VEHICLE

On December 13 the Minnesota Department of Transportation held a demonstration in St. Paul of a remotely driven vehicle (RDV) it developed jointly with the Strategic Highway Research Program (SHRP). The vehicle will be used experimentally in Minnesota as a shadow vehicle during slow-moving maintenance operations such as pothole patching, to prevent maintenance workers from being exposed to rear-end collisions. The demonstration, which attracted over 40 participants, featured explanations of the RDV's development, installation, and operation by **Rod Pletan** and **Jerry Miller** of Mn/DOT and **Don Harriot** of SHRP. The vehicle is a Ford L8000 dump truck with an add-on package of electronics, actuators, and hardware that allows an operator to "drive" the vehicle from a distance of 200 to 1,320 feet. This type of technology is being investigated by Mn/ROAD researchers, including Mn/DOT's **Dave Johnson**, for use in testing truck loads on the Mn/ROAD low volume road facility. The RDV is also an example of how IVHS technologies may be used with larger vehicles and for functions such as maintenance operations.

## UPCOMING TRANSPORTATION EVENTS

If you have an event you would like publicized, please call **Pam Snopl** of the Center at (612) 624-0841. For other Center information, please call (612) 626-1077.

- Jan. 7                    Transportation Industry Associations Annual Legislative Reception, Radisson Hotel St. Paul. Contact the Transportation Alliance at (612) 379-7227.
- Jan. 12-16            Transportation Research Board Annual Meeting, Hilton and Sheraton Hotels, Washington, D.C. Contact **Angelia Arrington** at (202) 334-2934.
- Jan. 23                CTS Faculty Seminar: "Solution of the Continuous Equilibrium Network Design Problem," by **Gary Davis**, Civil and Mineral Engineering, 3:35-4:25 p.m., 210 Civil and Mineral Engineering, University of Minnesota, Minneapolis. Open to the public. Contact CTS at (612) 626-1077.
- Jan. 30                CTS Transportation Careers Series--transportation leaders speaking to U of M students on career opportunities. **Steven Alderson**, Supervisor, Transportation Systems Planning, Metropolitan Council,

- 12:05-1:10 p.m., 210 Civil and Mineral Engineering, University of Minnesota, Minneapolis. Contact CTS at (612) 626-1077.
- Jan. 30 ASCE Section Meeting: "The Channel Tunnel: Its Management and Impact on European Transportation," by **Jack Lemley**, CEO, Transmanche-Link. Thunderbird Hotel, Bloomington. Contact Braun Intertec Pavement, Inc. at (612) 487-3245.
- Feb. 6 CTS Transportation Careers Series--transportation leaders speaking to U of M students on career opportunities. **Darryl Durgin**, Assistant Commissioner, Minnesota Department of Transportation, 12:05-1:10 p.m., 210 Civil and Mineral Engineering, University of Minnesota, Minneapolis. Contact CTS at (612) 626-1077.
- Feb. 13 Center for Transportation Studies Winter Quarter Luncheon and Speech: Professor **Mark Haselkorn**, University of Washington, "Understanding Commuter Behavior: Helping the Public Deal with Traffic Congestion." Radisson Hotel Metrodome, Minneapolis, 12:00-1:30 p.m. Contact CTS at (612) 626-1077.
- Feb. 20 CTS Faculty Seminar: "Strength Evaluation of Existing Bridges," by **Roberto Leon**, Civil and Mineral Engineering, 3:35-4:25 p.m., 210 Civil and Mineral Engineering, University of Minnesota, Minneapolis. Open to the public. Contact CTS at (612) 626-1077.
- Feb. 25-26 "Mainstream Minnesota Bicycling," 1992 Minnesota State Bicycle Conference, Saint Paul Hotel. Featuring **Josh Lehman**, national bicycle program manager for the USDOT. Call **Shawn Chambers** at (612) 296-1605.
- Feb. 27 CTS Transportation Careers Series--transportation leaders speaking to U of M students on career opportunities. **Robert Orthmeyer**, President, Braun Intertec Pavement, Inc., 12:05-1:10 p.m., 210 Civil and Mineral Engineering, University of Minnesota, Minneapolis. Contact CTS at (612) 626-1077.
- March 5 CTS Faculty Seminar: "Ultra-Fine Atomization of Methanol for Spark Ignition Engines in Cold Weather Applications," by **David Kittelson**, Mechanical Engineering, 3:35-4:25 p.m., 210 Civil and Mineral Engineering, University of Minnesota, Minneapolis. Open to the public. Contact CTS at (612) 626-1077.
- March 12 CTS Faculty Seminar: "Exploring the Role of Computer Technologies as Mechanisms for Managing a Dispersed Work Force in Minnesota," by **Gerardine DeSanctis**, Information and Decision Sciences, 3:35-4:25 p.m., 210 Civil and Mineral Engineering, University of Minnesota, Minneapolis. Open to the public. Contact CTS at (612) 626-1077.
- May 5-6 CTS Third Annual Transportation Research Conference, Radisson Hotel St. Paul. Contact **Lori Graven** at (612) 625-9023.